Behavioral Evaluation of Disorders of Sleep (BEDS)

Purpose Developed as a 28-item questionnaire, the BEDS scale evaluates the presence of four different types of sleep problems in elementary-school-aged children: expressive sleep disturbances (e.g., screaming, sleep-walking), sensitivity to the environment, disoriented awakening, and apnea/bruxism. As these factors do not necessarily relate to specific sleep disorder diagnoses, the tool is recommended by its developers for research purposes and not as "an instrument to replace a qualified clinical diagnosis" [1].

Population for Testing The scale has been validated for children between the ages of 5 and 12 years.

Administration A paper-and-pencil format, parents respond to a collection of descriptive statements based on their child's sleep behavior within the past 6 months. Requires between 5 and 10 min for administration.

Reliability and Validity Initial analyses conducted by Schreck and colleagues [1] demonstrated an internal consistency of $\alpha = .82$.

Obtaining a Copy A published copy can be found by contacting the authors.

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Scoring Parents are asked to use a five-point scale to rate the frequency of certain sleep behaviors exhibited by their child (0 is "never," while 5 is "always"). Higher scores indicate more severe sleep issues.

Behavioral
Evaluation
of
Disorders
of
Sleep

Child's name: _____
Age: _____   Sex: _____
Parent's Name: _____
Date Completed _____

BEDS Scores

	Score	Mean	Standard Dev.
Expressive Awakening		1.57	3.39
Sensitivity to the Environment		4.31	3.84
Disoriented Awakening		4.15	3.28
Apnea		.22	.74
Total Score		11.45	8.63

Instructions for completing the BEDS

Please answer the following statements about how often the child you care for does or has done the following behaviors in the last six months. If the child never experiences the sleep problem, circle "0". If the child always experiences the problem, circle "4". If the statement does not apply, answer "0".

(0) Never   (1) Rarely   (2) Sometimes   (3) Frequently   (4) Always

My child:

0 1 2 3 4   1. wakes up screaming during the night for more than 1 minute
0 1 2 3 4   2. is sluggish when awakened
0 1 2 3 4   3. sleeps more than other children his/her age
0 1 2 3 4   4. is disoriented when awakened
0 1 2 3 4   5. has trouble falling asleep
0 1 2 3 4   6. has a sudden leg jerk when falling asleep
0 1 2 3 4   7. plays with toys in bedroom at bed time
0 1 2 3 4   8. has headaches
0 1 2 3 4   9. can't move body when waking up or going to sleep
0 1 2 3 4   10. doesn't remember crying or screaming during the night
0 1 2 3 4   11. gets less than 6 hours sleep in a 24 hour period
0 1 2 3 4   12. complains that bed is uncomfortable
0 1 2 3 4   13. plays video games less than 1 hour before going to bed
0 1 2 3 4   14. sleeps in my room now

0 1 2 3 4   15. watches horror and/or action movies/TV show before bed
0 1 2 3 4   16. wakes up screaming during the night and cannot be calmed down
0 1 2 3 4   17. engages in violent behaviors while asleep (hits, kicks, punches, tackles)
0 1 2 3 4   18. takes frequent naps during the day
0 1 2 3 4   19. stops breathing during sleep
0 1 2 3 4   20. needs me to read before falling asleep
0 1 2 3 4   21. takes a day to "catch-up" on sleep
0 1 2 3 4   22. needs something to eat before falling asleep
0 1 2 3 4   23. can not be awakened when sleep walking
0 1 2 3 4   24. needs a night light to fall asleep
0 1 2 3 4   25. sleeps better in a place other than own bed
0 1 2 3 4   26. talks in sleep without knowing it
0 1 2 3 4   27. complains of jaw pain
0 1 2 3 4   28. requires medicine to help sleep
0 1 2 3 4   29. has no problem sleeping, when it is quiet outside
0 1 2 3 4   30. will stay in bed unless I get him/her up
0 1 2 3 4   31. has frequent skin rashes
0 1 2 3 4   32. is sleepy during the day

BEDS   3

(0) Never   (1) Rarely   (2) Sometimes   (3) Frequently (4) Always

0 1 2 3 4   33. sleeps longer or shorter on weekends than weekdays
0 1 2 3 4   34. complains that room is not dark enough to sleep
0 1 2 3 4   35. wakes up screaming and sweating during the night
0 1 2 3 4   36. needs a pacifier to fall asleep
0 1 2 3 4   37. walks in sleep
0 1 2 3 4   38. goes to bed at different times
0 1 2 3 4   39. has nightmares
0 1 2 3 4   40. acts out dreams
0 1 2 3 4   41. screams during the 2nd half of the night
0 1 2 3 4   42. wakes up crying at night
0 1 2 3 4   43. watches TV in bedroom
0 1 2 3 4   44. wakes up screaming approximately two hours after going to sleep
0 1 2 3 4   45. drinks soda/caffeine before bed
0 1 2 3 4   46. rocks body in sleep
0 1 2 3 4   47. has problems/been upset since a new adult moved into the home
0 1 2 3 4   48. sleep walks about 2 hours after going to sleep
0 1 2 3 4   49. does homework less than 1 hour before going to bed or in bed
0 1 2 3 4   50. has problems/been upset since a divorce or separation in the family
0 1 2 3 4   51. eats 1 hour before going to sleep
0 1 2 3 4   52. sees flashes of light when first going to sleep
0 1 2 3 4   53. does not remember walking in sleep
0 1 2 3 4   54. slept in my room as an infant
0 1 2 3 4   55. is afraid of falling, at bedtime
0 1 2 3 4   56. bangs head in sleep
0 1 2 3 4   57. stalls at bedtime
0 1 2 3 4   58. exercises before bed
0 1 2 3 4   59. looks at books or reads in bed
0 1 2 3 4   60. seems depressed
0 1 2 3 4   61. complains that room is uncomfortable
0 1 2 3 4   62. has problems/been upset since moving to a new home or school
0 1 2 3 4   63. wakes up during violent behaviors
0 1 2 3 4   64. throws temper tantrums at bedtime
0 1 2 3 4   65. has problems/been upset since the death of a family member,
                      friend, or pet
0 1 2 3 4   66. frequently has an upset stomach
0 1 2 3 4   67. rocks head in sleep
0 1 2 3 4   68. wets bed
0 1 2 3 4   69. is not awake when screaming at night

(0) Never   (1) Rarely   (2) Sometimes   (3) Frequently   (4) Always

0 1 2 3 4   70. sleeps worse after eating certain foods/beverages
0 1 2 3 4   71. is irritable
0 1 2 3 4   72. reacts slowly when awakened
0 1 2 3 4   73. will sleep for 6 hours or longer at a time
0 1 2 3 4   74. cries easily
0 1 2 3 4   75. needs something to drink before falling asleep
0 1 2 3 4   76. is awakened by loud noises (trains, traffic, etc.)
0 1 2 3 4   77. speaks slowly when awakened
0 1 2 3 4   78. chooses own bedtime
0 1 2 3 4   79. is under emotional stress
0 1 2 3 4   80. is sad
0 1 2 3 4   81. complains of aches, pains, or sore eyes
0 1 2 3 4   82. has difficulty breathing during sleep
0 1 2 3 4   83. wakes up screaming in the 2nd half of the night
0 1 2 3 4   84. is afraid of noises in the night
0 1 2 3 4   85. actively plays before bed
0 1 2 3 4   86. sleeps in inappropriate places
0 1 2 3 4   87. grinds teeth at night
0 1 2 3 4   88. takes medicine during the day that makes him/her sleep worse
0 1 2 3 4   89. wakes up during the night to eat
0 1 2 3 4   90. needs to rock to sleep
0 1 2 3 4   91. seems anxious or scared
0 1 2 3 4   92. needs a toy, stuffed animal or doll to go to sleep
0 1 2 3 4   93. needs a blanket to fall asleep
0 1 2 3 4   94. sleeps poorly without medicine at night
0 1 2 3 4   95. is afraid to fall asleep
0 1 2 3 4   96. takes naps without being told
0 1 2 3 4   97. snores
0 1 2 3 4   98. eats in bed
0 1 2 3 4   99. has a new sibling
0 1 2 3 4   100. sleeps less than other children his/her age
0 1 2 3 4   101. drinks more than 1 glass of water awakening
0 1 2 3 4   102. teeth are smooth
0 1 2 3 4   103. falls asleep before being put to bed
0 1 2 3 4   104. rubs eyes
0 1 2 3 4   105. becomes pale or blue during sleep
0 1 2 3 4   106. is limp or stiff during sleep
0 1 2 3 4   107. sleeps on a mattress that is less than 3 inches thick

Supplementary Questions

108. How many hours does your child typically sleep per night? _____

109. How many hours has your child slept in the last 24 hours? _____

110. How many hours does your child typically nap during the day? _____

111. Do you think your child has a sleeping problem?   YES   NO

Reference

1. Schreck, K. A., Mulick, J. A., & Rojahn, J. (2003). Development of the behavioral evaluation of disorders of sleep scale. *Journal of Child and Family Studies, 12*(3), 349–359.

Representative Studies Using Scale

Polimeni, M. A., Richdale, A. L., & Francis, A. J. P. (2005). A survey of sleep problems in autism, Asperger's disorder and typically developing children. *Journal of Intellectual Disability Research,* 49(4), 260–268.

Schreck, K. A., Mulick, J. A., & Smith, A. F. (2004). Sleep problems as possible predictors of intensified symptoms of autism. *Research in Developmental Disabilities,* 25(1), 57–66.